BY ORDER OF THE CHIEF,
NATIONAL GUARD BUREAU

MANPOWER STANDARD 2334SO

1 DECEMBER 2004

Manpower Standard

PNEUDRAULICS EC-130E (RIVET RIDER)

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This Air National Guard Manpower Standard (ANGMS) quantifies the manpower required to accomplish the tasks described in the process oriented description (POD) for varying levels of workload in the Pneudraulics EC-130E (Rivet Rider). This ANGMS applies to the Pneudraulics EC-130E, Rivet Rider mission only, at the 193rd SOW, PA. This standard applies to peacetime operations only. The Air National Guard (ANG) is the authority for the approval and publication of ANG Manpower Standards. Air Force (AF) and ANG directives contain policy and procedural guidance for the operation of the Rivet Rider function. This standard was developed in accordance with AF Instruction (AFI) 38-201, *Determining Manpower Requirements,* and AF Manual (AFMAN) 38-208, Volume 1, *Air Force Management Engineering Program (MEP) - Processes*, and AFMAN 38-208, Volume 2, *Air Force Management Engineering Program (MEP) - Quantification Tools.* Send comments and suggested improvements on AF IMT 847, *Recommendation for Change of Publication*, through channels, to ANG, Management Engineering Branch (ANG/XPME/Operating Location TN [OLTN]), 106 Briscoe Drive, McGhee Tyson ANG Base, TN 37777-6283.

1. STANDARD DATA.

1.1. Approval Date: 1 December 2004

1.2. Man-hour Data Source: Operational Audit method (historical record and technical estimate techniques).

1.3. Standard Man-hour Equation: $Y = 283.3 + 78.83(X1) + 1.915(X2)$.

1.4. Workload Factor.

1.4.1. Titles:

1.4.1.1. X1 = A Programmed Flying Hour.

1.4.1.2. X2 = A Primary Aircraft Vehicle Authorized.

1.4.2. Definition:

1.4.2.1. X1 = Monthly number of flying hours programmed.

1.4.2.2. X2 = Average monthly primary aircraft authorized.

1.4.3. Source: USAF Program Document (PD), Volume II maintained by ANG/XPPI.

1.4.4. Points of Contact.

1.4.4.1. Functional: Lt Col Robert Hoback, ANG/LGY

1.4.4.2. Manpower: Mr. Steve Griffith, XPME, Engineering Branch

2. APPLICATION INSTRUCTIONS.

2.1. Step 1. Man-hour Equation. Apply the man-hour equation in Paragraph 1.3., to determine required man-hours.

2.2. Step 2. Man-hour Availability Factor (MAF). Divide the resulting man-hours by the appropriate MAF times the overload factor.

2.3. Step 3. Upper and Lower Extrapolation Limits:

2.3.1. $Y_U = 452.62$.

2.3.2. $Y_L = 271.62$.

2.4. Step 4. Air Force Specialty Codes (AFSC) Requirement. Use the Manpower Table Attachment 3 to determine required AFSCs.

3. STATEMENT OF CONDITIONS. The conditions listed below had no affect on the development of this standard: minimum response rates, minimum manpower levels, standardized crew complements, safety considerations, aircraft turn-around time, length of waiting periods, levels of backlog and hours of operation.

DANIEL JAMES III, Lieutenant General, USAF
Director, Air National Guard

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI 38-201, *Determining Manpower Requirements*

AFMAN) 38-208, Volume 1, *Air Force Management Engineering Program (MEP)-Processes*

AFMAN 38-208, Volume 2, *Air Force Management Engineering Program (MEP) - Quantification Tools*

Abbreviations and Acronyms

AF - Air Force

AFMS - Air Force Manpower Standard

AFSC - Air Force Specialty Codes

AFTO - Air Force Technical Order

ANG - Air National Guard

ANGMS - Air National Guard Manpower Standard

CAMS - Computer Automated Maintenance System

FMB - Financial Management Board

MEP - Management Engineering Program

POD - Process Oriented Description

TCTO - Time Compliance Technical Order

UTA - Unit Training Assembly

WUC - Work Unit Code

Terms

Air National Guard Manpower Standard (ANGMS). A numbered, specialized publication that quantifies manpower requirements for a work center. Also includes approved variances. See AFI 38-201.

Man-hour. A unit of measuring work. It is equivalent to one person working at a normal pace for 60 minutes, two people working at a normal pace for 30 minutes, or a similar combination of people working at a normal pace for a period to time equal to 60 minutes.

Manpower Standard. The basic tool used to determine the minimum level of manpower required to support a function. It is a quantitative expression that represents a work center's man-hour requirements in response to varying levels of workload.

Process Oriented Description. A format that shows work center responsibilities structured for easy measurement of work categories, tasks and subtasks.

Attachment 2

PROCESS ORIENTED DESCRIPTION
PNEUDRAULICS

Table A2.1. Listing of Functional Process.

1.	ON-EQUIPMENT MAINTENANCE.
1.1.	MAINTAINS HYDRAULIC (UTILIT/BOOST) POWER SUPPLY SYSTEM. Inspects, troubleshoots, and repairs equipment.
1.1.1.	MAINTAINS HYDRAULIC RESERVOIR SYSTEM.
1.1.2.	MAINTAINS PUMP SYSTEM.
1.1.3.	MAINTAINS ACCUMULATOR SYSTEM.
1.1.4.	MAINTAINS HYDRAULIC PRESSURE INDICATION INSTRUMENT.
1.1.5.	MAINTAINS VALVE.
1.1.6.	MAINTAINS HOSE AND TUBING.
1.1.7.	MAINTAINS VENT SYSTEM.
1.1.7.1.	MAINTAINS FUEL JETTISON SYSTEM.
1.1.7.2.	MAINTAINS FUEL INSTRUMENT SYSTEM.
1.2.	MAINTAINS FLIGHT CONTROL. Inspects, troubleshoots, service, repair and performs operational check.
1.2.1.	MAINTAINS AILERON BOOST PACK.
1.2.2.	MAINTAINS ELEVATOR BOOST PACK.
1.2.3.	MAINTAINS RUDDER BOOST PACK.
1.2.4.	MIANTAINS RUDDER DIVERTER PANEL FLAP.
1.2.5.	MAINTAINS FLAP CONTROL SYSTEM.
1.3.	MAINTAINS LANDING GEAR.
1.3.1.	MAINTAINS MAIN LANDING GEAR.
1.3.2.	MAINTAINS NOSE LANDING GEAR.

1.3.3.	MAINTAINS MAIN LANDING GEAR WHEEL BRAKE.
1.3.4.	MAINTAINS NOSE LANDING GEAR STEERING HYDRAULIC COMPONENT.
1.4.	MAINTAINS AUXILIARY HYDRAULIC POWER SYSTEM.
1.4.1.	MAINTAINS AFT RAMP (HYDRAULIC COMPONENT) AND CARGO DOOR SYSTEM.
1.4.2.	MAINTAINS FORWARD DOOR AND CARGO DOOR SYSTEM.
1.5.	AIRCRAFT INSPECTION. Performs special, phase, and hourly aircraft inspection.
1.5.1.	PERFORMS ISOCHRONAL LOOK AND FIX PHASE.
1.5.2.	PERFORMS SPECIAL INSPECTION.
1.6.	MAINTAINS IN-FLIGHT REFUELING SYSTEM.
2.	OFF-EQUIPMENT MAINTENANCE. Maintains hydraulic and pneumatic power supply system including bench checks, inspections, repairs, and the manufacture of equipment.
2.1.	MAINTAINS HYDRAULIC RESERVOIR SYSTEM.
2.2.	MAINTAINS VALVE.
2.3.	MAINTAINS PUMP SYSTEM.
2.4.	MAINTAINS ACCUMULATOR SYSTEM.
2.5.	MAINTAINS FILTER SYSTEM.
2.6.	MAINTAINS HYDRAULIC PRESSURE INDICATION INSTRUMENT.
2.7.	MAINTAINS HYDRAULIC DOOR SYSTEM.
2.8.	MAINTAINS LANDING GEAR.
2.9.	MAINTAINS FLIGHT CONTROL.
2.10.	MAINTAINS VENT SYSTEM.
2.10.1.	MAINTAINS FUEL JETTISON SYSTEM.

2.10.2.	MAINTAINS FUEL INSTRUMENT SYSTEM.
2.11.	MAINTAINS IN-FLIGHT REFUELING SYSTEM.
3.	PERIODIC MAINTENANCE ON EQUIPMENT IN BASE SUPPLY. Performs periodic functional check or calibration of equipment stored in Base Supply to maintain shelf life and ensure serviceability before use.
4.	SHOP SUPPORT GENERAL CODE. WUC 09000. Performs shop support general code.
5.	GROUND HANDLING, SERVICING, AND RELATED TASK. Performs ground handling, servicing, and related task.
6.	ASSISTANCE. Assists other Maintenance function in the performance of direct labor maintenance requirement to ensure effective utilization of maintenance personnel.
7.	TIME COMPLIANCE TECHNICAL ORDER (TCTO). Performs maintenance required on/off the aircraft in accordance with applicable TCTO and completes documentation.
8.	HAZARDOUS WASTE.
8.1.	PROCESSES HAZARDOUS WASTE. Identifies, labels, contains and disposes of hazardous waste within applicable guidelines.
8.2.	MAINTAINS ACCUMULATION POINT. Maintains hazardous waste accumulation point satellite collection area and container.
8.3.	MAINTAINS PROTECTIVE EQUIPMENT. Inspects and performs all tasks associated inn maintaining protective equipment.
9.	MAINTENANCE AUTOMATED DOCUMENTATION SYSTEM. Inputs maintenance actions both on and off equipment into the CAMS System.
10.	BENCH STOCK MAINTENANCE. Inspects order, stocks, and issues bench stock.
11.	AIRCREW DEBRIEFING. Conducts aircrew debriefing.
12.	FOREIGN OBJECT DAMAGE WALK/INSPECTION. Performs walk around the maintenance complex and runway for debris.
13.	TECHNICAL DATA SUBACCOUNT MAINTENANCE. Receives and posts technical data associated with shop system.

14.	SPECIAL PLANNING OR SCHEDULING.
14.1.	PREPARES FOR UNIT TRAINING ASSEMBLY (UTA). Performs planning/scheduling, clean up, all associated tasks for UTA preparation.
14.2.	PREPARES FOR MOBILITY/DEPLOYMENT PARTICIPATION. Performs mobility and deployment planning/scheduling, clean up, all associated tasks, duties, and responsibilities.
14.3.	PREPARES FOR SPECIAL PROGRAM. Prepares and performs special program tasks, duties, and responsibilities.
15.	TRAVEL. Performs travel associated as it relates to the C-130 mission for conference, training workshop, and meeting away from duty station.
16.	INDIRECT. Indirect work involves those tasks that are not readily identifiable with the work center's specific product or service. The major categories of standard indirect work are: Administers Civilian, Officer, and Enlisted Personnel; Directs Work Center Activity; Provides Administrative Support; Prepares for and Conducts/Attends Meeting; Administers Training; Manages Supplies; Maintains Equipment; and Performs Cleanup.

Attachment 3

MANPOWER TABLE

Table A3.1. Standard Manpower Table.

WORK CENTER/FAC Pneudraulics/FAC 2334SO			APPLICABILITY MAN-HOUR RANGE 271.62 – 452.70								
Air Force Specialty Title	**AFSC**	**Grade**	**Manpower Requirement**								
Acft Pneud Sys Mech	2A6X5	Civ	2	3	4						
Total			2	3	4						

NOTE. AFSCs may be adjusted at the discretion of the Commander.